

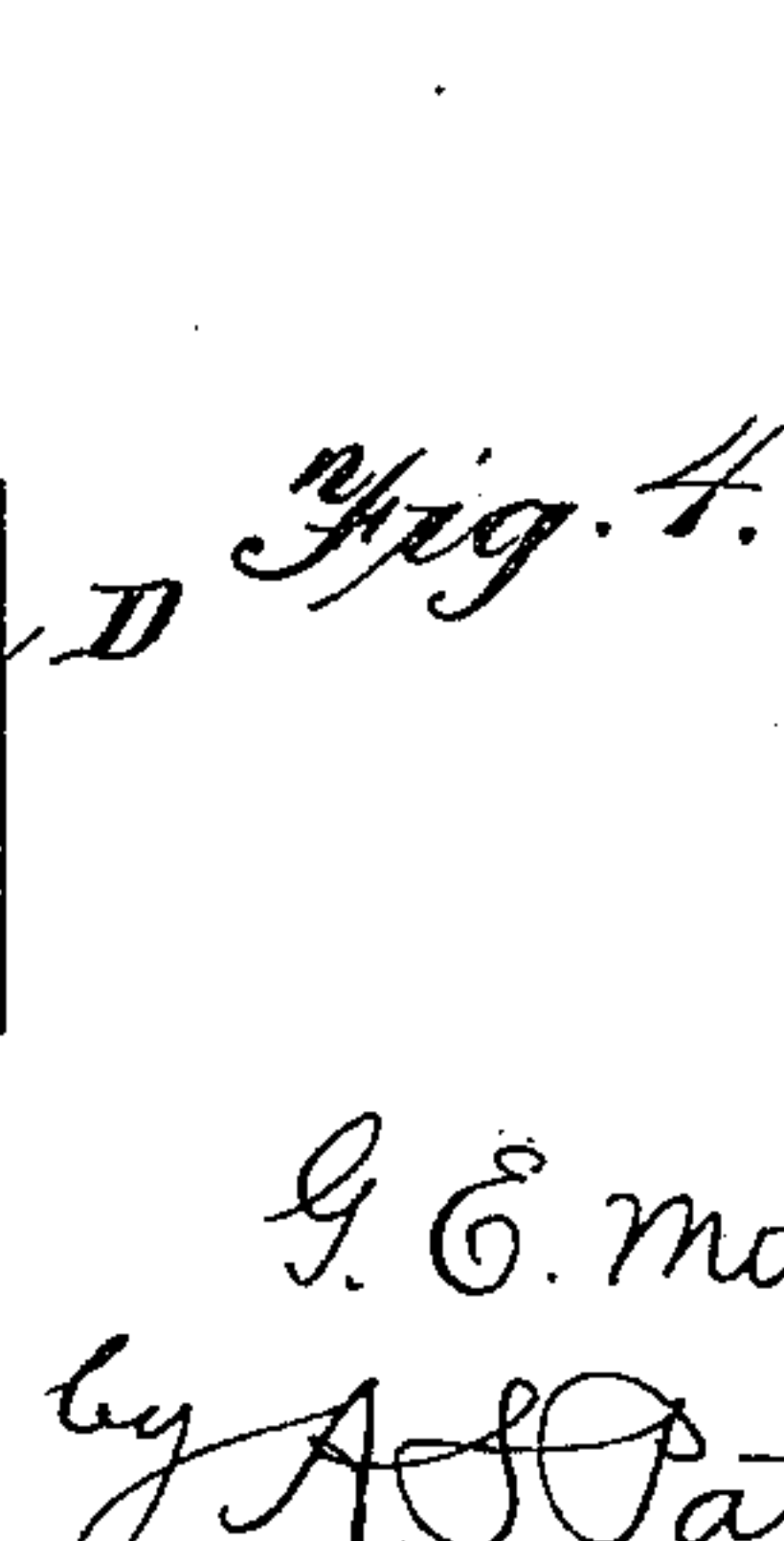
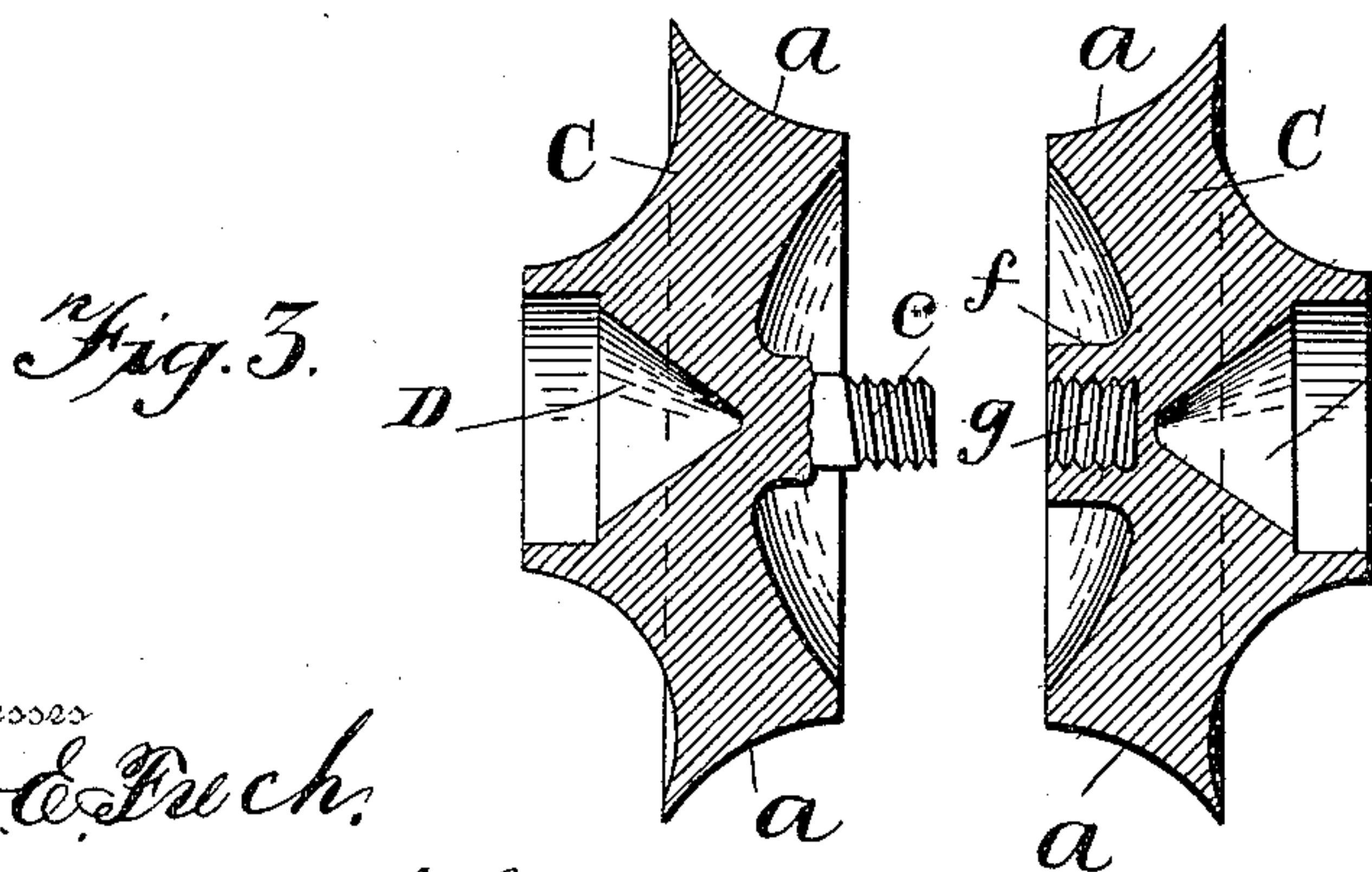
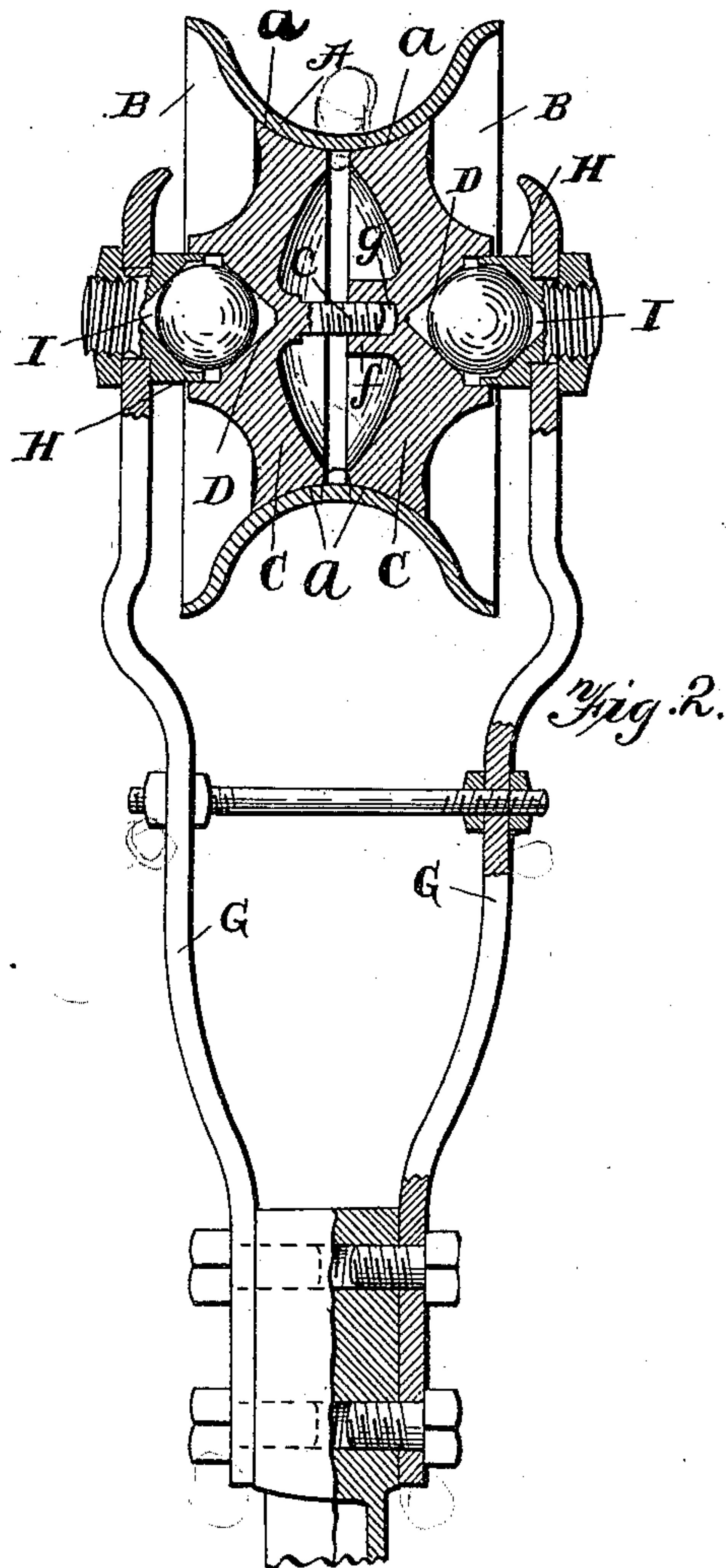
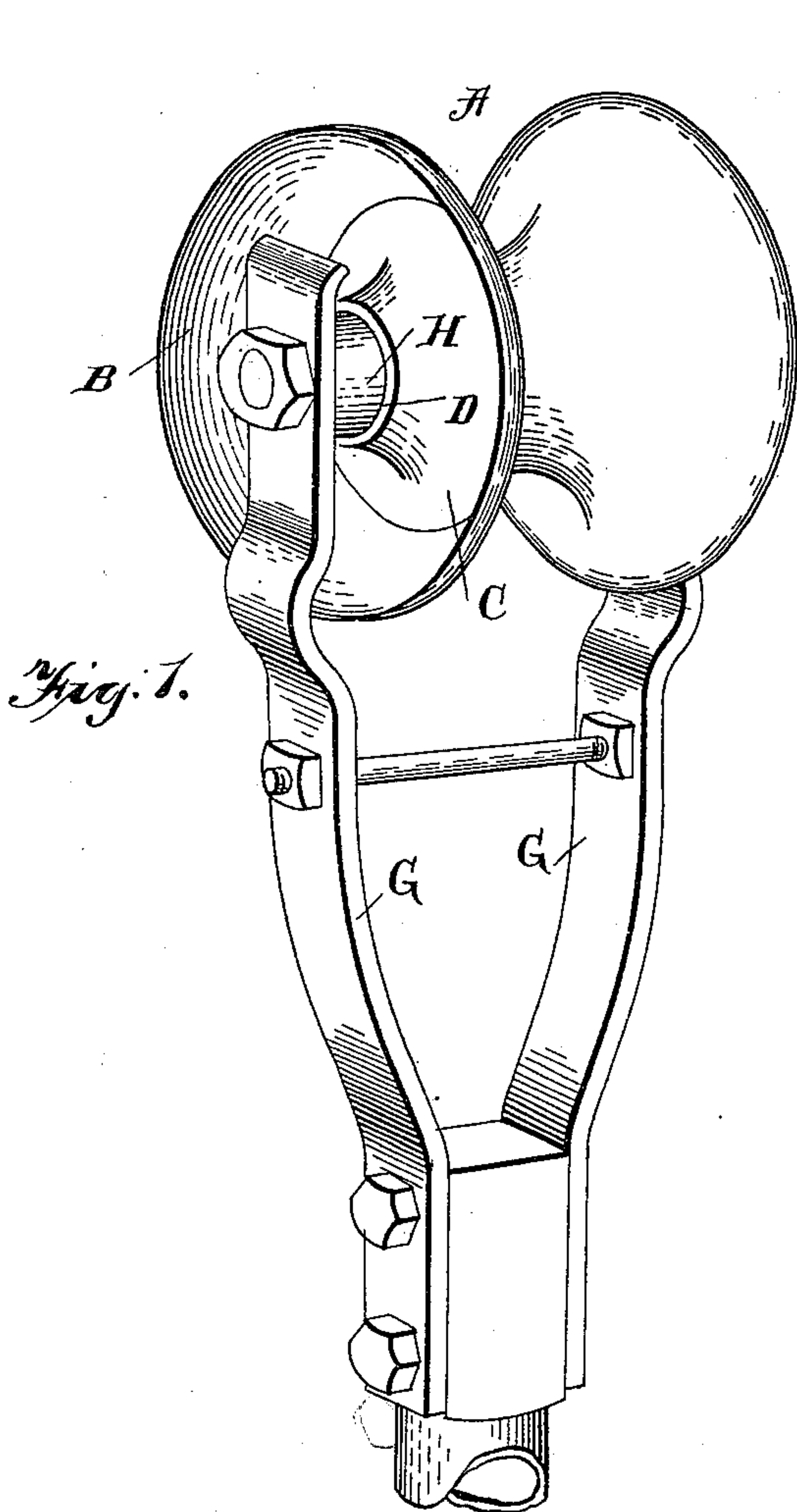
No. 640,009.

Patented Dec. 26, 1899.

G. E. MITTINGER, JR.
TROLLEY WHEEL.

(Application filed Apr. 21, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE E. MITTINGER, JR., OF CLEVELAND, OHIO, ASSIGNOR OF THREE-FOURTHS TO FREDERICK J. SCHWEITZER, OF SAME PLACE.

TROLLEY-WHEEL.

SPECIFICATION forming part of Letters Patent No. 640,009, dated December 26, 1899.

Application filed April 21, 1899. Serial No. 713,990. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. MITTINGER, Jr., a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Trolley-Wheels, of which the following is a specification.

My invention relates to improvements in electric trolley-wheels, all of which will be fully described hereinafter, and particularly pointed out in the claims.

The object of my invention is to provide a wheel consisting of a grooved shell portion and detachable clamping side pieces or portions constructed to be united and to clamp with frictional contact against the inner side of the grooved portion of said shell, the side portions provided with bearing-cavities, whereby a wheel is produced consisting of three portions, the bearing parts being adapted to be readily removed for repair or substitution.

In the accompanying drawings, Figure 1 is a perspective view of a wheel embodying my invention. Fig. 2 is a transverse sectional view taken through the center thereof. Fig. 3 is a detached view of one of the detachable sides of the wheel. Fig. 4 is a similar view of the other detachable side.

Referring now to the drawings, A represents a grooved shell portion which may consist of sheet or cast metal, as desired, thus producing a peripheral shell for the wheel with an open center and inwardly-dished opposite sides B.

C represents the detachable clamping centers or sides of the wheel, which have their edges tapered inward, as shown at *a*, to correspond with the dished outer surface *b* of the shell A and adapted to firmly fit therein. One of these detachable side portions is provided with (preferably) an integral inwardly-projecting screw-threaded projection *e*, and the opposite detachable side portion is provided with an inwardly-extending projection *f*, which is provided with a central screw-threaded opening *g* to receive the screw-threaded projection of the other detachable side. Each of these side pieces is provided with a concentric inwardly-extending tapered ball-cavity D for receiving the single large

balls F, which constitute the bearing of the wheel. The inner faces of these detachable sides do not come in contact with each other, whereby the inner tapered edges are clamped frictionally against the dished sides of the shell A and are readily attached and detached therefrom. It will also be noted that these sides cannot become detached by becoming loose for the reason that should the wheel tend to unscrew one side it will also tend to screw up the other side, and thus the detachable clamping sides are automatically held in frictional engagement with opposite sides of the shell A.

This wheel is supported by the parallel extending arms G, which are provided with the detachable bearing-cups H, which are also provided with ball-receiving cavities I. These supporting-cups are preferably detachable from the said parallel arms, whereby they can be detached for repair or duplication as necessity may require.

A trolley-wheel and bearing constructed as herein shown and described is simple and cheap to construct and is capable of having its bearing and its periphery or shell portion detached for the purpose of repair or substitution as necessity may require.

The bearing consisting of a single large ball, a good electrical contact is established therethrough, as will be readily understood.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A wheel comprising a grooved peripheral shell portion having a central opening, detachable sides therefor centered upon the periphery by engagement with the wall of the said central opening, and a clamping member passing through the said central opening and uniting the sides and holding them in frictional contact with opposite sides of the said shell, substantially as described.

2. A trolley-wheel consisting of a peripheral portion having dished sides and an open center, detachable sides for said peripheral portion carrying external ball-cavities, and a member uniting the said detachable side portions and holding them in frictional contact with the said dished sides of the periphery, substantially as described.

3. A wheel comprising a grooved peripheral
shell portion having an open center, detach-
able side portions having inwardly-tapering
edges fitting said dished sides of the shell,
5 and a member uniting the said detachable
sides and holding them in frictional contact
with the dished sides of the shell, substan-
tially as described.

10 4. A wheel comprising a grooved peripheral
shell portion having inwardly-dished sides
and an open center, detachable sides having
inwardly-tapering edges corresponding to the
dished sides and open center of the shell, the

side pieces having a central ball-cavity and
a uniting member for the side portions and 15
clamping them in frictional contact with the
dished sides of the shell, substantially as de-
scribed.

In testimony whereof I have hereunto set
my hand in the presence of two subscribing 20
witnesses.

GEORGE E. MITTINGER, JR.

Witnesses:

J. H. SALTSMAN,

D. J. ZINN, Sr.